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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,283	02/25/2004	Michael L. Callaghan	BING-I-1057	4004

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EXAMINER

BROADHEAD, BRIAN J

ART UNIT PAPER NUMBER

3661

DATE MAILED: 01/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/786,283

Applicant(s)

CALLAGHAN ET AL.

Examiner

Brian J. Broadhead

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7-15,17-41 and 43-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5,7-15,17-22,28-37,41 and 43 is/are allowed.
- 6) ☒ Claim(s) 23-27,38,44 and 45 is/are rejected.
- 7) ☒ Claim(s) 39,40 and 46-48 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The indicated allowability of claims 12-27 is withdrawn in view of the newly discovered reference(s) to Stone, 2004/0094077. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 38, 44, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pike et al., 4979588, in view of Milner, 3670849.

4. Pike et al. disclose a lift device in figure 1; at least one first sensor attached to the lift device on lines 15-21, on column 2; a controller coupled to the first sensor and the drive assembly to interrupt the drive assembly when the lift device approaches and or touches the object(22); a contact switch in figure 1; at least one display(118) linked to the controller, the display indicating a presence of the object proximate to the lift device; and a drive to move the lift device on lines 60-62, on column 2.. They do not disclose a second sensor to sense an object to at least one of a side and end (i.e. orthogonal) of the lift device. Milner teaches a second sensor to sense an object to at least one of a side and end (i.e. orthogonal) and disposed about an axis of the lift device on lines 6-33, on column 5. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the two sensors together because it would prevent

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collisions in more directions of movement. It is instantly obvious to one of ordinary skill in the art that a collision can happen in any direction the platform can move.

5. Claims 23, 24, 25, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stone, 3004/0094077, in view of Baldas et al., 2002/0074186.

6. Stone discloses a module to hold a plurality of sensors including one through beam receiver and one through beam emitter in figure 13, and paragraph 41. Stone does not disclose a first proximity sensor. Baldas et al. teach using any known sensor type in paragraph 38. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the sensor types of Baldas et al. in the invention of Stone. because it is a design choice. The advantages of certain sensors in different operating conditions are known. For example, optical sensors would have problems in a paint shop from the spray, providing two types would provide redundancy.

Allowable Subject Matter

7. Claims 1-5, 7-15, 17-22, 28-37, 41, and 43 are allowed.

8. Claims 39, 40, and 46-48 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not disclose a through beam emitter and receiver used to detect when a lift device is about to collide with another object; a plurality of modules attached to a surface, each module adapted to hold a plurality of sensors, each module including at least one first sensor attached to the module adapted to

detect objects proximate to the module and to transmit a corresponding first detection signal, at least one through-beam receiver attached to the module adapted to detect a light beam that may be interrupted by the proximity of objects and to transmit a corresponding second detection signal, and at least one through-beam emitter attached to the module adapted to emit a light beam that may be interrupted by the proximity of objects, the plurality of modules positioned with respect to the surface with the at least one through-beam emitter of a module being in optical communication with the at least one through-beam receiver of an adjoining module, and to transmit a corresponding third detection signal; a display that includes a directional display to display a direction the lift device will move if the at least one drive is activated; and a direction indicator to indicate the angle the steering mechanism is orientated.

Response to Arguments

10. Applicant's arguments filed 10-31-05 have been fully considered but they are not persuasive. The addition of the "orthogonal" limitation to the rejected claims does not overcome the prior art. The references cited already provide for different sides of a lift to be monitored, these sides are orthogonal.

Conclusion

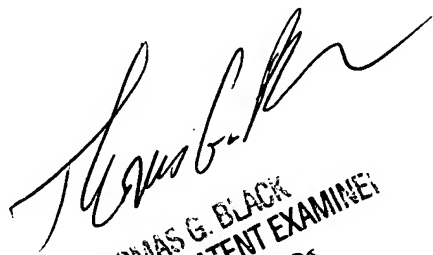
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Broadhead whose telephone number is 571-272-6957. The examiner can normally be reached on Monday through Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 571-272-6956. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


BJB


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